Chapter II

ECONOMICS OF INFORMATION AND
NON-MARKET-DECISION MAKING
Information theory is a formal mathematical theory, a branch of the theory of probability. As such, the theory is self-contained, it does not require verification by the experiment (Frick, 1959). Cherry Colin (1957), On Human Communication (1961), has charted the development of the theory of information within the field of communication. Information is measured in terms of what actually is communicated under a defined set of circumstances rather than in terms of what actually is communicated at a particular moment. Recently information theory has been applied to Economics and a new branch of Economics has been developed and known as "Economics of Information". The chief contributors in this field are G.J. Stigler (1961); R.A. Jenner (1966); A. Rees (1966); G. Tullock (1966), H. Demset (1969) and others.

Let us now define the new branch of knowledge - the Economics of Information. It deals with the processes by which information is produced, diffused, stored and is used. Stigler wrote: "One should hardly have to tell academicians that information is a valuable resource: Knowledge is power. And yet it occupies a slum dwelling in the town of economics. Mostly it is ignored: the best technology is assumed to be known; the relationship of commodities to consumer preference is a datum. And one of the information producing industries advertising is treated with a hostility that economists normally reserve for tariffs or monopolists."

Economics of Information recognises that an economic system is activated by decisions which link information flows to objectives. This new branch of Economics has further contributed in analysing consumer behaviour, Engel (1967), research and development, employment and monetary theory (Shackle, 1965),
national economic planning (Grossvud, 1968), economic development (Kunkel, 1970) and welfare economics. It has provided new tools to study some unsolved problems of economics such as oligopoly behaviour and inter-temporal welfare comparisons.

To analyse non-market decision-making it is necessary to define the term 'market' and the term 'decision'. A market can be defined as a situation where demanders and suppliers are in contact with each other. A market needs not to be a building (like the stock exchange) or the traditional saturday morning market. Decision-making as defined by Encyclopedia of the Social Sciences "is a social process that selects a problem for decision and produces a limited number of alternatives, from among which a particular alternative is selected for implementation and execution."

The origin of decision-making in Economics has its beginning in the eighteenth century work of mathematical economists, Bernouli (1738). More attention was directed to economic decisions under uncertainty by Fisher (1906), Hicks (1936) and Hart (1940). Modern contribution in decision-making process in Economics are available in the works of Von Neumann and Morgenstern (1944), "Theories of Games", Herbert A. Simon (1947), Milton Friedman (1948) and others.

A few of the contemporary economists of the twentieth century such as Buchanan, Becker, Coase, Demsetz, Posner, Simon and others have been of the view that Economics can be to some extent studied by non-market decision-making. For example, Coase's two articles, "The Nature of the Firm" (1937)
and "The Problem of Social Cost" (1960); Demsetz's brilliant paper "Towards a Theory of Property Right" (1967); James Buchanan "Public Choice Theory"; and Herbert A. Simon's Administrative Behaviour (1947), Public Administration (1950), Organisations (1958) are the studies of the Economics of the Non-Market Decision-Making.

In this chapter, we propose to discuss the contribution of three economists, namely, George J. Stigler, James Buchanan and Herbert A. Simon who have made pioneering contribution in this field.

GEORGE J. STIGLER

Life Sketch

George J. Stigler was born in Renton, Washington in 1911. He took his Bachelor's degree from the University of Washington in 1931, his Master's degree from North-Western University in 1932. He received his Doctoral degree from the University of Chicago under the supervision of Prof. Frank Knight. He became a Professor at Brown University in 1946. He served as President of the American Economic Association and the History of Economic Society in 1977. He also received honorary degree from five American and European Universities. He was rightly honoured with Nobel Prize in Economics in 1982 for his research on the working of industry and the role of the government regulation in the economy. He also made pioneering studies in the industrial organisation, price theory, the functioning of markets and the causes and effects
of price regulation.

**His Works**


**His Contribution**

**Price Variation**

Stigler contributes Price Variation and Advertising aspects of the Economics of Information.

The most important contribution of Stigler in Economics thought is a new branch of Economics which is popularly known as "Economics of Information". He said that a number of problems in Economics are neglected because of ignorance of knowledge. He systematically analysed one important problem of information - the ascertainment of market price. Price variation is a common phenomena in different markets. It is difficult for one individual to know all the prices which various sellers or buyers quote at any given time in the market. It can be possible only in a completely centralised market. Even for homogeneous
goods price dispersion is ubiquitous, of course, ignorance in the market is due to price dispersion. If we include the terms of sale within the concept of the commodity, then it is practically impossible to have absolute homogeneity in the commodity; under such circumstances dispersion is a biased of ignorance. It is a wrong notion to accept that all dispersion is due to heterogeneity. The prices quoted by sellers will be a frequency distribution of any time. If any buyer needs a particular commodity from the first seller then he has to pay whatever price is asked for by the seller. But if the dispersion of price quotations of sellers is at all large, it will pay, on average, to canvass several sellers. Economists have not thoroughly studied the frequency distribution of asking and offering prices in order to support any hypothesis as to their nature.

Let us analyse the fact that if 'sellers' asking prices are represented by \( P \) which are uniformly distributed between zero and one, it can be mathematically explained as follows:

1. The distribution of minimum prices with \( n \) search is

\[
(n-1-P)^{n-1}
\]

2. The average minimum price is

\[
\frac{1}{n+1}, \quad \text{and}
\]

3. The variance of the average minimum price is

\[
\frac{n}{(n+1)^2(n+2)}
\]
(a) NORMAL DISTRIBUTION OF PRICES

(b) UNIFORM DISTRIBUTION OF PRICES
Whatever the precise distribution of prices, it is certain that increased search will yield diminishing returns as measured by the expected return in the minimum asking price. This is obviously true of the rectangular distribution with an expected minimum of \( \frac{1}{(n+1)} \) with \( n \) searches, and also of the normal distributions.

In fact, if a distribution of asking prices did not display this property, it would be an unstable distribution for reasons that will soon be apparent.

For any buyer the expected savings from an additional unit of search will be approximately the quantity, \( q \), he wishes to purchase times the expected reduction in price as a result of the search,\(^7\)

\[
q \left( \text{\textdollar} \frac{\text{min}}{\text{n}} \right)
\]  

(2)

If price dispersion are greater than in such conditions the expected savings from given search will be greater. The saving will be high if expenditure on the commodity is greater. For a consumer, the cost of search is equivalent to the number of sellers approached. There is no equal identity for the cost of search for all consumers taken as a whole. For the high income brackets, time is more valuable excluding differences in tastes. The optimum amount of search can be easily found out if the cost of search is equated to its expected marginal return. Like buyers, sellers can also be engaged in search for unique items. This is empirically an unimportant case. In this case, optimum amount of search can be calculated by equating marginal cost of search to the expected increase in receipts which is strictly parallel to the analysis for buyers. So
far as the unique goods are taken into consideration, the efficiency of personal search both for buyers and sellers is extremely low. Because of high costs of search often transactions are used as a device for identifying potential buyers and sellers.

Advertising

Advertising identifies buyers and sellers and reduces the cost of search. But advertising has its own drawbacks, that is, it is expensive in nature. Specialized traders also provide implicitly a meeting place of potential buyers and sellers. Let us take into account dealer markets which are competitive, where there is a substantial centralization of trade activity, in such cases each dealer faces a distribution of buyers' bid and can change his selling prices with a corresponding effect upon purchases. There is even discrimination in each individual transaction so far as the markets for divisible goods are concerned. Under such circumstances the buyer has a maximum price given by the lowest price he encounters among the dealers he has searched, but no maximum price. Every dealer fixes a selling price which is represented by \( P \) and makes sales to all those buyers who consider it the minimum price. Asking prices by dealers are uniformly distributed, the number of buyers of a total of \( Nb \) possible buyers who will purchase from him is

\[
N_i = Knb^n (1-P)^{n-1}
\]

Where \( K \) is a constant. The number of buyers from a dealer increases.
as his price is reduced, and at an increasing rate. Moreover, with the uniform
distribution of asking prices, the number of buyers increases with increased
search if the price is below the reciprocal of the amount of search. 8

Inexperienced buyers pay higher prices in market in comparison to expe-
rienced buyers. Because the former lacks sufficient knowledge of market as
compared to the latter. In a new market, a buyer is unable to find out the
dispersion of prices, so he has to make a number of search; but, in general,
one approaches a market with some general knowledge of the amount of disper-
sion for dispersion itself is a function of the average amount of search, and
this in turn is a function of the value of the commodity.

The number of possible searches may be as follows:

1. The larger the fraction of the buyer's expenditure on the commodity,
   the greater the savings from search and hence the greater amount of search.

2. The larger the fraction of repetitive (experienced) buyers in the market,
   the greater the effective amount of search (with positive correlation of
   successive prices).

3. The larger the fraction of repetitive sellers, the higher the correlation
   between successive prices, and hence, by condition (2), the larger the amount
   of accumulated search.

4. The cost of search will be larger, the larger the geographical size of
   the market. 9
The sources of dispersion of prices are numerous. If there is instability of supply and demand conditions in the market, the dispersion of prices will be very high. Even experienced buyers and sellers are unable to find out proper information in the market because of new entrance of buyers and sellers in the market. Stigler has pointed out that when the size of market increases, the cost of information will be high. Under such circumstances, there will be a set of firms whose function will be to collect and sell market information.

Advertising is an important media through which information is provided to genuine buyers and sellers. The buyers make extensive searches if the flow of information is higher. The use of entertainment to attract buyers to information is a comprehensive phenomenon. When information is supplied in an enjoyable manner, people are willing to pay more for the information.

Stigler explained with the help of mathematical formulae that a monopolist advertises in order to make his profits.

\[ \Pi = Npq\lambda - (N\lambda q) - ap_a, \]

Where \( P = f(q) \) is the demand curve of the individual buyer, \( \varphi(Nq) \) is production costs and \( ap_a \) is advertising expenditures. The maximum profits conditions are enumerated as follows:

\[ \frac{\partial \Pi}{\partial q} = N (P+q \frac{\partial P}{\partial q}) - \varphi'N = 0 \] (1)
Equation (1) as stated above explains the usual marginal-cost-marginal revenue equality, and equation (2) states the equality of (Price-marginal cost) with the marginal cost

\[
\frac{\partial \pi}{\partial a} = Npq \frac{\partial \lambda}{\partial a} - \phi'Nq \frac{\partial \lambda}{\partial a} - P_a = 0
\]

Equation (1) as stated above explains the usual marginal-cost-marginal revenue equality, and equation (2) states the equality of (Price-marginal cost) with the marginal cost

\[
\left[ \frac{P_a}{Nq} \left( \frac{\partial \lambda}{\partial a} \right) \right]
\]

of advertising. Let us again explain a simple version of advertisement by a competitive firm. Let us make the assumption that all firms are identical and all buyers have same demand curves and their search are equivalent. We get profit maximization equation:

\[
\text{Marginal cost curve} = P \left( 1 + \frac{1}{\eta_{qp} + \eta_{kp}} \right),
\]

\(\eta_{qp}\) represents the elasticity of buyer's demand curve and \(\eta_{kp}\) represents the elasticity of the fraction of buyers purchasing from the seller with respect to his price. The latter elasticity is equivalent to the number of search made by a buyer. If asking prices are uniformly distributed, increased search will lead to increased advertisement by low-price sellers and reduced advertising by high price sellers. If the number of firms increases the amount of advertisement decreases. But this argument of Stigler is not applicable everywhere in the complex world of today. Price differences often diminish if the advertise-
ment is very large on the part of sellers. But we do not find equality of prices or no price variation because advertisement does not reach all potential buyers within a fixed time. To provide cent percent information to buyers of all consumption items is a tedious task, it is absolutely impossible.

It may now be concluded that Information Economics is an important branch of Economics which can rationalise our resources and prevent wastage of time. Accurate information makes it possible to create sufficient demand for goods and services which are daily produced in the economy. But the search of information is a complex problem. Hence care should be taken to get accurate information both from the producers and consumers. Better quality of goods commands more reputation which in turn commands a price and economises the number of search. We can avoid ignorance of knowledge of price variation to some degree but it is not possible absolutely to do so in the economic theory of market.

JAMES BUCHANAN

Life Sketch

James Buchanan was born in Murfresboro, Tennessee in 1919. He took his Bachelor's degree from the University of Middle Tennessee in 1940. He received his Master's degree from the University of Tennessee in 1941. He got his Doctorate degree from the University of Chicago in 1948. In 1956, he became a Professor of Economics and Director of the Thomas Jefferson
Centre of Political Economy at the University of Virginia.

His Works


His Contribution

Buchanan is the founder of 'Public Choice Theory' in the economic study of non-market decision-making. In other words, he attempts to complete the theory of market exchange with a corresponding theory of the functioning of political markets.

According to him, individuals, separately and in groups, make decisions concerning the use of economic resources. They do so in at least two capacities: first, as purchasers (or sellers) of goods and services in organised markets, and secondly, as 'purchasers' (or 'sellers') of goods and services through organised political processes.¹¹ He gives us the term 'public goods' which he defines, as those goods which are provided by 'collective organisation'. Decisions are
assumed to be made on the preferred quantities of public services one at a time; and the costs of each service are assumed to be measured in one tax. Historically, legislative bodies through which the preferences of the individual citizens are most directly represented, have exercised more control over revenue or tax decisions that they have over expenditure decisions. Surprisingly, little recognition has been given, in the final analysis, so far as the 'costs' of those public goods and services are concerned which provide benefit to the same people who pay taxes.

We should try to make as much sense as is possible out of collective choice processes in democratic political organisation. Whether or not suitable models can be developed, we know directly or indirectly that individual do participate in fiscal choice. They make decisions, they elect representatives who make promises on fiscal matters; they occasionally vote in referenda; they support one political party or another; they join pressure groups; they write speeches; they write books; they talk to their neighbours. If this is acknowledged then the influence of institutions on their behaviour can scarcely be defined. Different institutions will tend to produce differing patterns of response. It is widely recognised that even in day-to-day market choices, the individuals may not be in command of anything approaching complete knowledge about the alternatives that he faces. There are several reasons for this ignorance. First of all, given the fact that securing information is costly, the optimal degree of investment in search may produce results that fall for short of genuine omniscience. Secondly, choice may be such that uncertainty cannot be eliminated
under maximum investment in information gathering. Thirdly, the individual may operate under all illusion that he is more informed than he actually is; it may be wholly impossible, for the external observer of individual choice behaviour to make distinctions between several situations. If any one of them, the rationally motivated behaviour of the individual may produce results that are not desired or intended.

Buchanan has not difficulty in showing that the growth of government activity in recent years has departed widely from his 'optimal' constitution and his writings, therefore, abound in suggestions for additional constitutional constraints on government and its multifarious agencies. Indeed, he has called for a 'constitutional revolution' to reassess the entire spectrum of constitutional rights of individuals.

In conclusion, it may be said that Buchanan's contribution to economic theory has its own significance so far as public choice theory is concerned. The decision-making process for the use of public goods and services should be based on democratic process. Individuals are likely to make wrong investment-decisions in public goods because of costly information and uncertainty. Hence, it is necessary for any type of economic system to make decision on the investment in public goods by duly elected and represented government.
Herbert A. Simon was born in 1916 in Milwaukee, Minnesota. He received his B.A. in 1936 from the University of Chicago. After submitting dissertation on Decision-Making in Organization, Simon obtained his Ph.D. degree in Political Science from the University of Chicago in 1943. That dissertation with modifications and additions was published in 1947, under the title Administrative Behaviour; a study of decision making process in administrative organization. He got his Professorship in Political Science in 1947 from Illinois Institute of Technology. He received a number of honorary degree from various universities of the world. He was honoured with Nobel Prize in Economics in 1978 for his life times study of administrative behaviour and decision-making in large organisation. The Nobel Committee acknowledged that "modern business, economics and administrative research are largely based on Simon's ideas". The Swedish Academy of Social Sciences described Simon as "one of the greatest of interdisciplinary researchers".

His Works

Simon's main publications are Administrative Behaviour (1947), Public Administration, Models of Man (1956), Organisations (1958), New Sciences of Management Decisions (1960); The Shape of Automation of Man and Management (1965), The Sciences of Artificial (1969), Models of Discovery (1977), Models
of Bounded Rationality and Other Topics in Economic Theory (1982). \(^{13}\)

His Contribution

Administrative Behaviour

According to the Neo-Classical Theory of the Firm, the assumption is that the main objective of a firm is maximisation of profit. But Simon puts forward the argument that in a complex world of today, businessmen are unable to get sufficient information to make decisions that maximise profits. They merely seek to reach satisfactory targets in their decision-making process. Simon's interest in decision-making has also led him into the fields of Political Science as well as into Psychology and Computer Sciences.

In Simon's masterpiece Administrative Behaviour he attacked the usefulness of existing administrative theory in public administration and other organisations such as commercial industrial, military and private non-profit organisation. His main motive was to conduct a set of tools, a set of concepts, and a vocabulary suitable for describing an organisation and the way an administrative organisation works. In administrative organisation we study the decision-making processes of the executives. At present greater attention has been paid to the functioning of our society's organisations. Its large corporations and Governments organisation theory is utmost important to administrators, executives and behavioural scientists. Professor Simon explicitly discusses the nature of organisation, of the administrative process, of the nature of decisions, and the
elements of value and fact entering into decisions. To achieve either some objectives or goals, the individual behaviour within the administrative organisation is taken into account. It helps us to bring an integration in the pattern of behaviour. The role of administration will be valueless in the absence of the integration of individual behaviour of the employees. Decision leads to the selection of final goods. Through the medium of organization, loyalty, efficiency criterion and training also influence in the decision whenever the same elements are involved in large number of decisions. Training may supply the trainee with the facts necessary in dealing with these decisions. It may provide him a sort of reference for his constructive thinking. It may teach him 'approved solutions, or it may indoctrinade him with the values in terms of which his decisions are to be made. In a business organisation we find three types of participants - entrepreneurs, employees and customers. Bernard insisted that customers are an integral part of the system of organisation of behaviour. Entrepreneurs decisions are ultimately control the activities of the employees. Employees contribute their time and efforts to the organisation.

Administrative Principles

According to Simon, there are four accepted administrative principles: 1) administrative efficiency is increased by a specialization of the task among the group; 2) administrative efficiency is increased by arranging the members of the group in a determinate hierarchy of authority, 3) administrative efficiency is increased by limiting the span of control at any point in the hierarchy to
a small number; 4) administrative efficiency is increased by grouping the workers, for the purpose of control according to a) purpose, b) process, c) clientele or d) place. So far as administrative efficiency is concerned, administrative efficiency is increased by a specialization of the task among the group in the direction that will lead to greater efficiency. It also increases by arranging the members of the organisation in a determinate hierarchy of authority in order to preserve 'unity of demand'. Administrative efficiency is enhanced by keeping at a minimum the number of organisational levels through which a matter must pass before it is acted upon. Good administration is that which attempts rationally to maximise the attainment of certain ends with the use of scarce means. Administrative theory must be interested in the factors that will determine with what skills, values and knowledge the organisation member undertakes his work. Every decision involves two elements viz. i) factual and ii) value. In principle, factual propositions may be tested to determine whether they are true or false, whether what they say about the world actually occurs, or whether it does not. But in reality decisions are more than factual propositions because they have an ethical as well as a factual content. We can derive factual propositions from ethical ones by any process of reasoning. It is also not possible to compare ethical propositions from facts. As a result of this there is no tool to test rationally or empirically the correctness of ethical propositions. Judgement plays an important role in decision-making process. Value judgement has been more fully explored by administrative discretion. There are two types of management - public and private management. In the former,
final responsibility for determining objectives rests with legislative body. In the latter it rests with the Board of Directors, and ultimately with the stockholders.

So far as rationality in administrative behaviour is concerned, the administrator should select the effective means. Rationality behaviour also involves a listing of the consequences in their order of preference, and the choice of the strategy which corresponds to the alternative highest on the list.

Rationality

Rationality deals with the selection of referred behaviour alternatives in terms of some system of values whereby the consequences of behaviour can be evaluated. Knowledge is the means by which all the possible consequences of a behaviour will follow. The ultimate aim of knowledge is to discover a single unique possibility which is consequent of each behaviour alternative. Knowledge about the consequences of behaviour is thus identified as a primary influence on choice. The second influence is found to lie in the preferences of the behaving individual for one set of consequences as compared with others. The problem of choice is one of describing consequences, evaluating them, and connecting them with behaviour alternatives. Means and ends are not always related to facts and values but still there is some relationship between the two sets of terms. A means-end chain was defined as a series of causally related elements ranging from behaviour to the values consequent on them.
An individual cannot reach a high degree of rationality because of a large number of alternatives. Rationality implies a complete, and unattainable, knowledge of the exact consequences of each choice. Generally organisation behaviour is oriented towards the organisation objective. But sometimes organisation objective changes in response to the influence of those for whom the accomplishment of that objective secure personal values.

We shall now discuss how the role of authority influence in the decision-making process. There are two aspects of influence viz. external and internal. Let us assume that decision is a set of premises - value premises and factual premises. In case of individual decision over a particular course of action, some of the premises upon which this decision is based may have been imposed upon him by the excise of the organisation's authority over him, some may have been the result of his training, others of his desire for efficiency, still others of his organisational loyalty, and so forth.

There is unity and coordination of behaviour so far as behaviour of organised human groups is concerned. Floyd H. Allport terms it 'group mind' in his book Institutional Behaviour. In the complex form or organisation, individual set himself a general rule which permits the communicated decision of another to guide his own choices without deliberation on his own part on the expediency of those premises.

Simon defines authority as 'the power to make decisions which guide the actions of another', the exercise of authority in a group makes possible
a large degree of separation of the decision making processes from actual performance or what might be called vertical specialization in decision-making. Simon mentioned three important functions of an authority viz., i) it enforces responsibility of the individual to those who wield the authority; ii) it secures expertise in the making of decisions and iii) it permits coordination of activity. Four methods are generally used to prevent conflicts in authority. They are (a) An individual may receive orders from several superiors, but in case of a conflict there is one and only one whom he is supposed to obey; (b) In case of conflicts an individual should obey the orders of only one authority; (c) Division of authority each unit in the organisation is assigned some specified area over which it has exclusive authority, and the decisional premises of any individual that fall within this area are subject to that authority; (d) A system of rank an individual is subject to the authority of all often individuals of a certain rank. If he receives conflicting orders, he follows the last one received, but is bound to bring the conflict to the attention of the person issuing the order.\textsuperscript{18}

There are two types of organisation - formal and non-formal. The schemes of formal organisation itself prescribes the lines of authority and division of work that shall be followed in carrying-out the work of the organisation. The informal organisation implies the interpersonal relationship in the organisation that affect decisions within it but either are omitted from formal scheme or not consistent within that scheme.
communication

Communication plays a vital role in decision-making process. It can be defined as any process whereby decisional premises are transmitted from one member of an organisation to another. There will be no organisation without communication. It has dual function (i) transmitted to a decisional centre, (ii) from decisional centre to other parts of the organisation. There are two types of communication, viz. formal and non-formal. Media of formal communication are (i) Oral communication takes place between individuals and their immediate superiors or subordinates; (ii) Memoranda and letters; (iii) Paper flow, (iv) Records and Reports, and (v) Manuals. Informal communications is built around the social relationships of the members of the organization. Individuals may, develop this system as a means of increasing their own power and influence in the organisation. Training provides as a means for communicating decisional premises to organisation members.

Training is applicable to the process of decision wherever the same elements are involved in a large number of decisions. It provides a higher degree of decentralisation of the decision-making process by bringing the necessary competence into the very lowest levels of the organisational hierarchy.

A person identifies himself with a group when, in making a decision, he evaluates the several alternatives of choice in terms of their consequences for the specified group. Identification is an important mechanism for constructing the environment of decision.
The psychological base of identification involves at least three elements: i) personal interest in institutional success, ii) a transfer of public agencies of a private management philosophy and iii) limitations upon the area of attention which prevent more than a restricted sphere of values from coming within its purview. New techniques must be developed and improved for measuring the success of particular administrative arrangements.

Simon's ideas have greatly influenced teaching methods in business schools. He along with Allen Newell of the Rand Corporation, decided that the right way to solve administrative decisions problem was to stimulate it with computer programme. He has developed computer, programmes that could solve problems in a humanoid fashion. These experiments are called "artificial intelligence." As a result of his investigation in artificial simulation of human thought processes, his work fell primarily within the academic disciplines of psychology and computer science.

In the words of Professor Mark Blaug "psychologist regard him (Simon) as a psychologist, computer scientists regard him as a computer scientist, and economists regard him as an economist. To call him a 'social scientist' is no less than he deserves, he is a living denial of the proposition that there is no alternative to intellectual specialization."

In the end, we may say that Simon's contribution to the contemporary economic theory is a master-piece. Decision-making process is not a single
variable but a set of variables like authority, rationality, efficiency, communication, coordination, etc. It is equally inevitable in any economic system whether it is a capitalist or socialist or mixed or an under-developed economy, to maximise production and minimize cost, inefficiency, wastage of resources and time; there should be democratic process, proper and correct decision-making. However, decision in administrative department should not be taken haphazardly to avoid evil consequences.

In the preceding pages we have discussed the contribution of three economists - George J. Stigler, James Buchanan and Simon A. Herbert in the context of economics of information and non-market decision making. It is a growing branch of knowledge which must draw the attention of all students of economics. Information and non-marketing decision-making must, therefore, be included as an additional variable in production function and price behaviour in all types of economic activities.

Notes and References


5. _Ibid._, p. 43.


8. _Ibid._, pp. 67-68.


17. _Ibid._, p. 121.

18. _Ibid._, p. 141.